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ABSTRACT

This workbook was designed as an easy-to-read, slower-paced text for students who have learning, reading, and language problems. As one of five workbooks to aid low achievers in problem solving, it focuses on language skills needed to read mathematical problems. Students learn to recognize and use a basic vocabulary of mathematical words, symbols, and abbreviations. Questions within the text repeatedly involve the students' attention, and their learning is checked and reviewed within each lesson. Word problem situations reflect mathematical problems that students might actually meet. Worksheets to accompany the workbook are available in the teacher's guide. The six units in the workbook are entitled: Words about Numbers, Words That Compare Numbers, Changing Numbers, Words about Money, Words That Measure, and Abbreviations and Symbols. A glossary is included. (MNS)

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Math LANGUAGE

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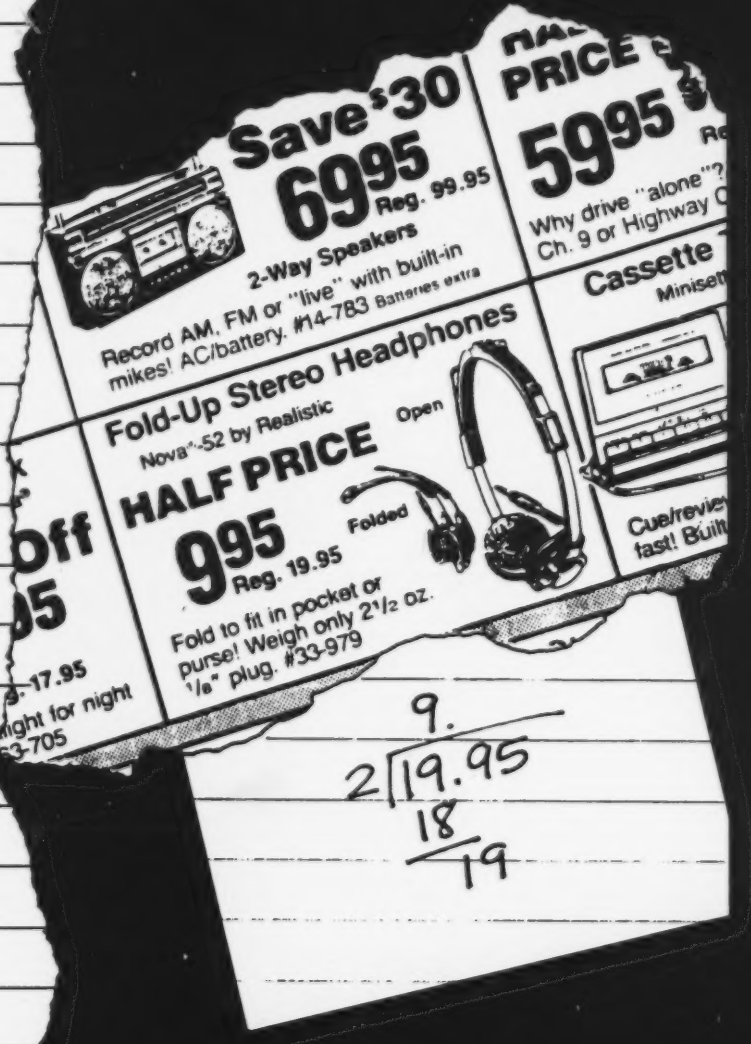

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MATH LANGUAGE

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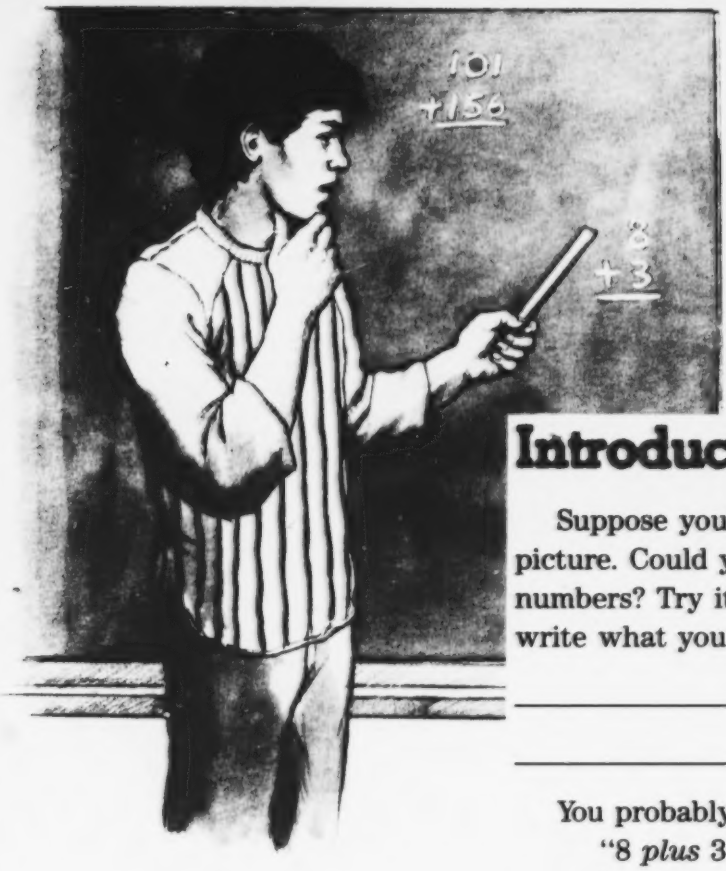
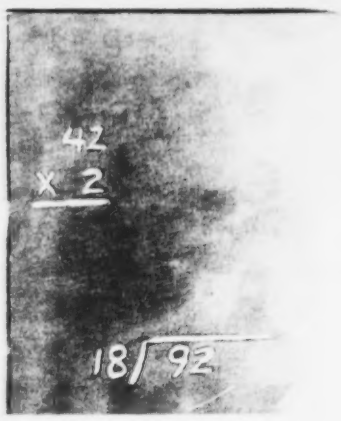




Introduction

Suppose you're doing the math problem in the picture. Could you talk about it by just saying numbers? Try it. Say that problem out loud. Then write what you say.

You probably said something like this:

"8 *plus* 3 *equal what?*"

Or "8 *and* 3 *are what?*"

You had to use *words* to talk about math.

Now suppose you're doing this word problem:

Yakim worked 8 hours yesterday.

He worked 3 hours today.

How many hours did he work in all?

Notice this: It's the same problem as the one in the picture. But it's told like a story—with lots of words.

We can't talk about math or do word problems without using words. Some of those words help us understand the problems. They also help us do the problems.

In this book you'll be learning many of those words. They are words you'll see in word problems. They are words you'll also see in real-life places such as stores and banks.

Did you ever say these sentences to yourself?

"I don't understand this word problem!"

"I don't get it!"

"I don't know how much to pay in this store!"

This book can help change all of that!

Unit 1

Words About Numbers

Picture this: You're doing a word problem. And you're stuck! You can't decide what to do. You can't decide which numbers to use.

Certain math words can help you. Those words *describe* numbers. Sometimes, they tell you what to do with numbers. Sometimes they tell you how many numbers to use. In this unit, you'll learn some of those math words.

Operation Words

You already know some important math words. For example, you probably know the four math operation words below. And you probably know their signs. Draw a line from each word to its sign. (One is done.)

Math Words
add
di vide
mul ti ply
sub tract

1. add	a. ×
2. subtract	b. +
3. multiply	c. ÷
4. divide	d. −

Other Words

Sometimes we use other words to talk about the math operations. For example, we say "3 *plus* 5" or "3 *and* 5" when we add. What other words do you know for each operation?

1. add _____
2. subtract _____
3. multiply _____
4. divide _____

What Kind of Answer?

Add, subtract, multiply, and divide. What do you get? You get an *answer.* The answer of each of the operations has a special name.

Look at the math words below. Each word is the name of an answer. How many do you know? Draw a line from the math word to its operation. Then check yourself. (The right answers are upside down.)

1. quotient	a. add
2. sum	b. subtract
3. difference	c. multiply
4. product	d. divide

Answers: 1. d 2. a 3. b 4. c

Math Words

dif fer ence
prod uct
quo tient
sum

The Right Name

Look at the math problems. Then finish the sentences. Write *difference, product, quotient,* or *sum.*

1. 24 × 8 =

What's the _____?

2. 24 + 8 =

Find the _____.

3. 24 − 8 =

Find the _____.

4. 24 ÷ 8 =

What's the _____?

Bonus: Work out the problems if you want to. Use the extra space on this page.

How Much? How Many?

All word problems usually have a question. That question asks you to find out *how much* or *how many* something is. The math words in the word box are often used in those questions. Do you know what the words mean?

Look at the math words. Write them in the sentences you think they belong in. Then check yourself.

Math Words

al to geth er
a mount
in all
re main
to tal

1. _ _ _ _ _ _ is the *number* or *sum* of something.
2. _ _ _ _ _ _ means *whole.* It sometimes means the answer you get after you do all the math.
3. _ _ _ _ _ _ describes *everything* or *all of something.*
4. _ _ _ _ _ _ _ _ _ _ _ _ is another way to describe *everything* or *all* of something.
5. _ _ _ _ _ _ means *are left.*

Answers: 1. Amount 2. Total 3. In all
4. Altogether 5. Remain

Use the Words

Some words in these questions are circled. Write the questions and change those words to math words. Use a different math word in each sentence. (One is done.)

1. What (sum) does each person pay?
   What amount does each person pay?
2. What is the (whole) cost?

   _____
3. How much does he pay (for everything)?

   _____
4. How many hours did he work (all that week)?

   _____
5. How many boxes (are left)?

   _____

Which Operation?

Sometimes you can guess if an answer will be bigger or smaller than certain numbers in a problem. That helps you decide which operation to do.

Read these word problems. Will each answer be bigger or smaller than the numbers in dark type? Write *bigger* or *smaller*. Then write the operation you'd do to solve that problem. (The first is done.)

1. Paul worked **5** hours today. He worked **8** hours yesterday. How many hours did he work *altogether?*

   a. answer: bigger b. operation: add

2. You're buying lunch. You spend **$.50** for a drink, **$2.00** for a sandwich, and **$1.50** for a salad. How much do you spend *in all*?

   a. answer: _____ b. operation: _____

3. **50** runners start running in a race. During the race, 33 runners drop out. How many runners *remain*?

   a. answer: _____ b. operation: _____

4. Jo works 6 days every week. She works **5** hours every day. What is the *total* number of hours she works each week?

   a. answer: _____ b. operation: _____

5. Kim has a credit card. She gets her bill for one month. It shows that she spent **$10** at a store. She spent **$35** at an eye clinic. And she spent **$20** in a restaurant. What is the *amount* of her bill?

   a. answer: _____ b. operation: _____

Bonus: Work out the word problems. Use the space above.

Use the Words

Finish writing this word problem. Use one of the math words in the word box.

Jan packs boxes in a warehouse. He packed 30 boxes today. But he packed 40 boxes yesterday.

_____

_____

One of Something

Sometimes a word problem talks about the amount of something. The math words in the word box all do the same job. They tell you that an amount is for one thing or a group of things. Finish these sentences. Write the math word that best fits each sentence.

Math Words
at
each
for
per

1. The car's speed was 50 miles _ _ _ hour.
2. _ _ _ _ shirt is $6.
3. The sale price on rings is 2 _ _ _ $15.
4. He bought 10 boxes of fruit _ _ $2 a box.

Answers: 1. per 2. Each 3. for 4. at

What's the Answer?

Now read these problems. Put an **X** in front of the right answers.

1. Charlie buys 3 pounds of meat *at* $1.15 a pound. He spends $3.45. What is the price for 1 pound of meat?

   _____ a. $1.15 _____ b. $3.45

2. Mario rents a boat for $15. Rent is $5 *per* hour. He uses the boat for 3 hours. What is the cost for 1 hour?

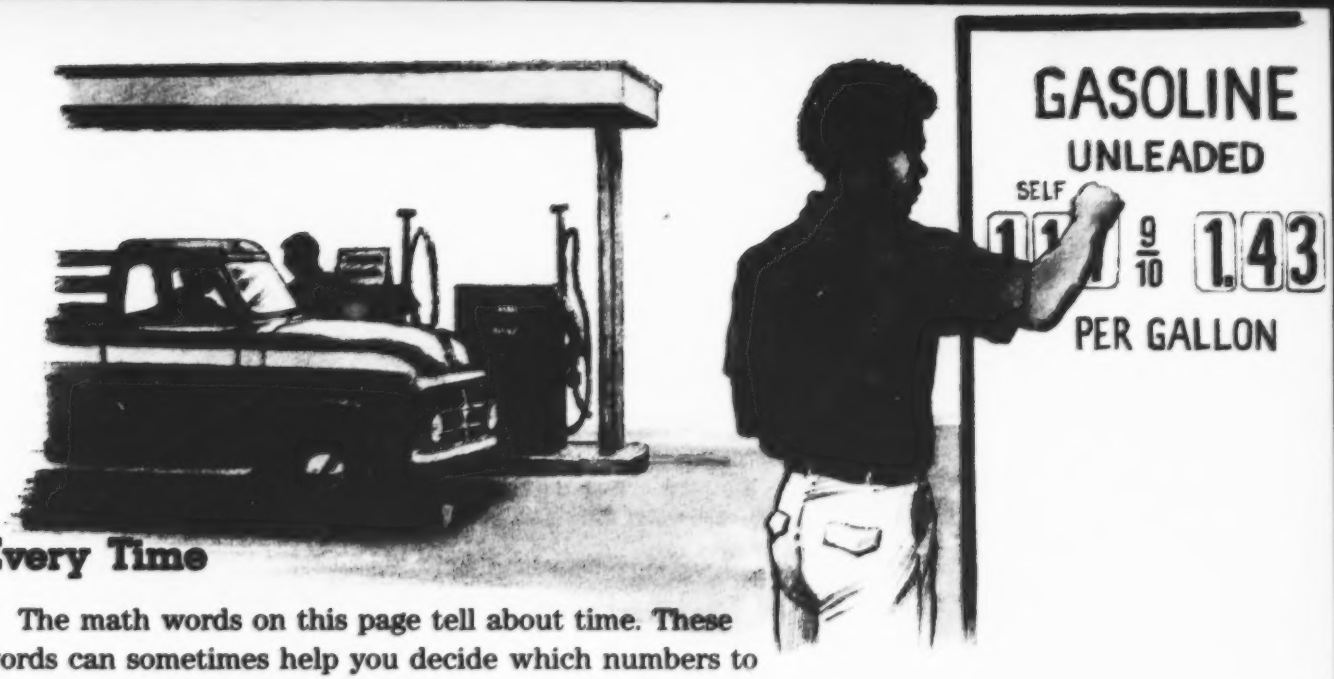
   _____ a. $15 _____ b. $5

3. Shirts are on sale at a store. The sale price is 2 *for* $8. If you buy 1 shirt you must pay $5 for it. What is the special sale price for?

   _____ a. 1 shirt _____ b. 2 shirts

4. 5 students must share a computer. They have 5 hours to use it. *Each* student will use it for 1 hour. How many hours can 1 student use the computer?

   _____ a. 5 hours _____ b. 1 hour



Every Time

The math words on this page tell about time. These words can sometimes help you decide which numbers to use when you work on a problem.

Look at the words in the word box. Notice that the first part of the word is the name for an amount of time. And notice that all the words end in **ly**.

Now answer these questions.

Math Words
dai ly
hour ly
month ly
week ly
year ly

1. What word means *every hour*? _ _ _ _ _ _
2. What word means *every month*? _ _ _ _ _ _ _
3. What word means *every week*? _ _ _ _ _ _
4. What word means *every day*? (Be careful with the spelling!) _ _ _ _ _
5. What word means *every year*? _ _ _ _ _ _

Answers: 1. hourly 2. monthly 3. weekly 4. daily 5. yearly

Use the Words

Now write sentences using these math words. (The first one is done.)

1. hourly His hourly pay is $4.
2. monthly _____
3. weekly _____
4. daily _____
5. yearly _____

Unit 2

Words That Compare Numbers

Word problems talk about *things*. (For example: money, time, or inches.) They also talk about the *number* of things—how much or how many there are of those things.

Word problems use certain math words to compare numbers. Those words show if numbers should be the same or different. Or if they should be larger or smaller. In this unit, you'll learn some of those math words.

How Big?

The math words in the word box show how big a number should be. They tell if a number is larger or smaller than another number. Look at the math words. Answer these questions. Then check your answers.

Math Words

few er than
great er than
less than
more than

1. Two math words show that a number should be *larger*. What do you think those two words are?

   a. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

   b. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

2. Two math words show that a number should be *smaller*. What do you think those words are?

   a. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

   b. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Answers: 1. a. greater than b. more than
2. a. fewer than b. less than

What's the Number?

Draw a circle around the math words. Then finish each sentence. Write a number that makes sense. (One is done.)

1. $48 is (greater than) $40.
2. 10 boxes is fewer than _____ boxes.
3. 200 persons is more than _____ persons.
4. 6 hours is less than _____ hours.

More or Less?

The words in the word box can show this: Who has more or less of something. Read these problems and circle the math words. Then answer the questions. (The first is done.)

1. Joe has $10. Pete has $6 (less than) Joe.

   a. Who has more money?

   Joe

   b. Who has less money?

   Pete

2. Martha has 2 brothers. Charles has 2 brothers more than Martha.

   a. Who has more brothers?

   b. Who has less brothers?

3. Tom works 40 hours a week. Mark works 3 fewer hours.

   a. Who works more hours?

   b. Who works less hours?

4. Yoko has $200 in savings. Mara's savings is $50 greater than Yoko's.

   a. Who has more savings?

   b. Who has less savings?

Add or Subtract?

Read the problems at left again. Answer the questions below. Write *add* or *subtract*. Then write the correct sign in each math problem. (The first is done.)

1. How much money does Pete have?

   To find out: subtract

   $10
   − 6

2. How many brothers does Charles have?

   To find out: _____

   2
   2

3. How many hours does Mark work?

   To find out: _____

   40
   3

4. How much savings does Mara have?

   To find out: _____

   $200
   50

Bonus: Do the math problems.

How Much?

The math words in the word box show how much there is of something. Look at the words. Answer these questions. Then check your answers.

Math Words
e qual ly
e ven ly
least
most

1. What word means *the largest amount of all*?

   — — — —

2. What word means *the smallest amount of all*?

   — — — — —

3. What two words mean *the same amount for all*?

   a. — — — — — —

   b. — — — — — — —

Answers: 1. most 2. least 3. a. evenly b. equally

Who Gets What?

Read these word problems. Circle the math words. Then answer the questions. Write *most*, *least*, or *same*. (One is started for you.)

1. Three teams played 20 games together. Team A won 3 games. Team B won 10 games. And Team C won 7 games. Who won the (most) games and who won the least games?

   Answers: a. Team A won the _____ games.

   b. Team B won the _____ games.

2. Al and Jean make money washing cars. Today they make $20. They divide it evenly. Al gets $10. How much does Jean get?

   Answer: Jean gets the _____ amount.

3. Al, Jean, and Kim buy a pizza. It has 12 slices. They share the pizza equally. Al eats 4 slices. Jean eats 4 slices too. How many slices does Kim eat?

   Answer: Kim eats the _____ number of slices.

What's the Answer?

Read these problems. Choose an answer for each of them. Explain why you chose that answer. (The first is done.)

1. The Cubs baseball team makes 3 base hits in the first inning. They make 5 base hits in the second inning. They make 2 base hits in the third. In which inning do they get the most base hits?

   Answer: _____ a. first __X__ b. second _____ c. third

   Why did you choose your answer? "Most" means the largest. 5 is the largest number. The Cubs made 5 base hits in the second inning.

2. Mary makes 2 apple pies. She has 6 cups of apples. She divides the apples evenly. She puts 3 cups of apples in 1 pie. How many cups does she put in the other pie?

   Answer: _____ a. 2 cups _____ b. 6 cups _____ c. 3 cups

   Why did you choose your answer? _____

   _____

3. Jose works 8 hours on Monday. He works 5 hours on Thursday. He works 9 hours on Friday. When does he work the least number of hours?

   Answer: _____ a. Monday _____ b. Thursday _____ c. Friday

   Why did you choose your answer? _____

   _____

4. Helen and Leah babysit together. They charge $2.50 an hour. Today they earn $12.50. They split the money equally. Helen gets $6.25. How much does Leah get?

   Answer: _____ a. $2.50 _____ b. $12.50 _____ c. $6.25

   Why did you choose your answer? _____

   _____

Unit 3

Changing Numbers

Suppose you're doing a word problem. The problem is about the price of something and how that price changes. Did the price go up? Did it go down? How can you know?

Certain math words tell you how numbers change. You'll learn some of those words in this unit.

Larger or Smaller?

The math words below tell you that certain numbers change. They become larger or smaller. Which words tell you that? Finish the sentences. Write *larger* or *smaller*. Then check yourself.

1. **Decrease** means to make a number _____.
2. **Reduce** means to make a number _____.
3. **Raise** means to make a number _____.
4. **Increase** means to make a number _____.

Answers: 1. smaller 2. smaller 3. larger 4. larger

Math Words

de crease
de creased
in crease
in creased
raise
raised
re duce
re duced

What's the Answer?

Answer these questions. Use the words below:

decrease **increase** **raise** **reduce**

1. What two math words mean to make a number smaller?

   a. _ _ _ _ _ _ _ _ _

   b. _ _ _ _ _ _ _

2. What two math words mean to make a number larger?

   a. _ _ _ _ _ _ _ _ _

   b. _ _ _ _ _

Mathword Puzzler

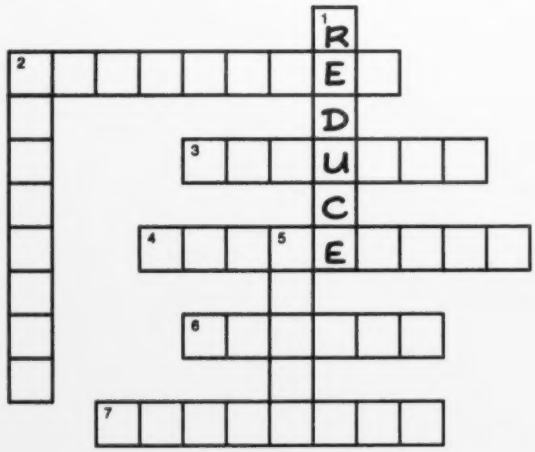
Finish the puzzle. Use the math words in the word box. Notice that some words end in **ed**.

Across

2. His hours were _____ from 10 hours a week to 4.
3. All prices were _____ to $\frac{1}{3}$ price.
4. Mary's weight _____ from 100 to 110 pounds.
6. The fee was _____ from $10 to $25.
7. We will _____ your pay from $4.00 to $4.50 an hour.

Down

1. $5 less will _____ his pay.
2. His bill will _____ from $100 to $80.
5. She will _____ that number from 6 to 9.



What's Wrong?

These sentences don't make sense. That's because one word in each of them is wrong. Find the word and cross it out. Then write the correct word on the line after the sentence. (The first is done.)

1. Her rent was ~~decreased~~ from $120 to $180. increased
2. Bank rates were raised from 12% to 10%. _____
3. His work hours were increased from 8 hours to 6. _____
4. The price was reduced from $30 to $40. _____

Use the Word

Finish these sentences so they make sense.
Think of two numbers for each sentence.

1. The weight increased from _____ pounds to _____ pounds.
2. The number of animals decreased from _____ to _____.
3. The rent was raised from $_____ to $_____.
4. The time was reduced from _____ months to _____ months.

Three Little Words

By, *from*, and *to* are three important words. Each word can change the meaning of a sentence. You can see that in these three sentences. Each sentence is the same except for one little word.

Math Words

increased by
increased from
increased to

a. The price was increased **by** $5.
b. The price was increased **from** $5.
c. The price was increased **to** $5.

1. Write the sentence that tells what the price *used to be*.

_____

2. Write the sentence that tells what the price *changed to*.

_____

3. Write the sentence that tells *how much* the price changed.

_____

Answers: 1. b. The price was increased *from* $5.
2. c. The price was increased *to* $5.
3. a. The price was increased *by* $5.

Which Word?

Finish these sentences. Write *by*, *from*, and *to*.

1. _____ shows what a number used to be.
2. _____ shows what a number changes to.
3. _____ shows how much a number changes.

What's the Answer?

The sentences below are all about the price of a shirt. Read the sentences. Then answer the questions.

a. The price was increased **to** $10.
b. It was increased **from** $8.
c. It was increased **by** $2.

1. What did the price *used to be*? _____
2. What is the price *now*? _____
3. *How much* was the price increased? _____

Use the Words

You learned how *by*, *from*, and *to* change the meaning of a sentence. See how they do that here.

Math Words

decreased by
decreased from
decreased to

raised by
raised from
raised to

reduced by
reduced from
reduced to

1. A calculator is on sale. Its price is $3 cheaper. It used to be $8. It is now $5. Finish these sentences. Write *reduced by*, *reduced from*, or *reduced to*. (The first is done.)

   a. The price was reduced from $8.

   b. The price was _____ $3.

   c. The price was _____ $5.

2. Jennie lifts weights. She used to lift 50-pound weights. Now she lifts 40-pound weights. Those weights are 10 pounds lighter.

   a. The weights were decreased to _____ pounds.

   b. The weights were decreased from _____ pounds.

   c. The weights were decreased by _____ pounds.

3. Mannie used to earn $4.00 an hour. Now he earns $4.50 an hour. He makes $.50 an hour more. Finish these sentences. Use *raised by*, *raised from*, and *raised to*.

   a. Mannie's pay was _____.

   b. His pay was _____.

   c. His pay was _____.

4. Now choose *one* of the following.
   - Write sentences about a sale on cars. Use *reduced by*, *reduced from*, and *reduced to*.
   - Write sentences about a baseball player. Use *raised by*, *raised from*, and *raised to*.
   - Write sentences about a job. (You decide which job.) Use *increased by*, *increased from*, and *increased to*.
   - Write sentences about making or eating a food. Use *decreased by*, *decreased from*, and *decreased to*.

   a. _____

   b. _____

   c. _____

Unit 4

Words About Money

Some word problems are about money. They ask you to find out an amount of money, such as how much a person earns, or how much a thing costs.

Certain math words are used to talk about money. Those words are also used in real-life places such as banks, stores, and work places. You'll learn some of the words in this unit.

What's the Word?

The math words in the word box are often used in problems about pay. They are also used in problems about saving or spending money. Read the meanings below. Then write the math words you think they describe. (The first is done.) When you are finished, check your answers. Correct your mistakes.

Math Words

charge
cred it
de duct
de pos it
with draw

1. To add an amount to what you owe: c h a r g e
2. To take out money from something like a paycheck: _ _ _ _ _ _
3. To take out money from something like a savings account: _ _ _ _ _ _ _ _
4. To add an amount to what you already have: _ _ _ _ _ _
5. To add money to something like a savings account: _ _ _ _ _ _ _

Answers: 1. charge 2. deduct 3. withdraw
4. credit 5. deposit

What's the Meaning?

Write the meanings of these math words.

1. charge _____
2. deduct _____
3. withdraw _____
4. credit _____
5. deposit _____

Add or Subtract?

These math words can help you decide to add or subtract. Look at their meanings on the other page again. Notice this: They all say *add* to something or *take away* from something.

1. What three words mean to add an amount of money to something?

   a. _ _ _ _ _ _

   b. _ _ _ _ _ _

   c. _ _ _ _ _ _ _

2. What two words mean to take away an amount of money from something?

   a. _ _ _ _ _ _

   b. _ _ _ _ _ _ _ _

What's Happening?

Read these sentences. Draw a circle around the math words. Then answer the question. Write *adds* or *subtracts*.

1. Tom earns $250.00 a week. His boss (deducts) $12.50 for taxes. What does Tom's boss do?

   Tom's boss subtracts $12.50 from $250.00.

2. You have $500 in your savings account. The bank credits $5 to that account. What does the bank do?

   The bank _____ $5 to $500.

3. You buy a chair for $80. The store charges you $3 to deliver the chair to your home. What does the store do?

   The store _____ $3 to $80.

4. Larry has $100 in his savings account. He deposits $20. What does Larry do?

   Larry _____ $20 to $100.

5. Leon has $200 in his savings account. He withdraws $45. What does Leon do?

   Leon _____ $45 from $200.

What's the Word?

The math words in the word box are often used in problems about buying things. Read the meanings below. Then write the math words you think they describe. Check your answers when you are finished. Correct any mistakes.

1. Money a person gets back when paying:

   — — — — — —

2. The amount a person now has:

   — — — — — — —

3. A part of an amount:

   — — — — — — —

4. A charge to borrow money or buy on time:

   — — — — — — — —

5. A lower price:

   — — — — — — — —

Math Words

bal ance
change
dis count
in ter est
per cent

Answers: 1. change 2. balance 3. percent
4. interest 5. discount

What's the Meaning?

Circle the math word in each sentence. Then write the meaning of that word. (The first is done.)

1. Al's (change) was $2.30.
   Money a person gets back when paying.
2. The interest for buying that furniture on time is $60.

   _____

3. You can get a discount on tapes at that store.

   _____

4. Shoes are ten percent cheaper during the sale.

   _____

5. The balance of what you owe is $50.

   _____

What's the Question?

These word problems all end with a question. Circle the math word in the question. Then, write the question again in your own words. (*Don't* use the math word.) The first is done.

1. Lin is buying furniture from a store. The furniture costs $600. She will buy it on time. She will pay the store $660 for the furniture. How much (interest) is she paying?

   What is the charge to buy on time?

2. Tom buys a sport coat for $38.50. He gives $40.00 to the sales person. How much change does Tom get?

   _____

3. Savers Store has a sale. Pants that used to be $20 are now $4 cheaper. What is the discount price of those pants?

   _____

4. Sara buys a car that costs $3,600. She gives the car dealer $350. She will pay the rest on time. What is the balance of what she must pay?

   _____

5. Greg eats in a restaurant. His bill is $4.00. He gives the waiter a $.60 tip. What percent is the tip?

   _____

Bonus: Do the problems. Use the space above.

Your Turn

Use the math words in the word box. Think up a problem of your own. Write it here.

_____

_____

_____

_____

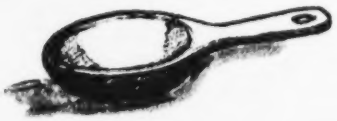
Unit 5

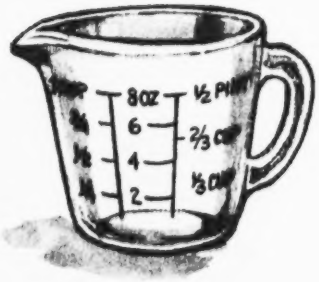
Words That Measure

Certain words in word problems describe *units of measure*. You probably know many of those words. In this unit, you'll review some of the words.

Words About Food

The words in the word box are often seen in word problems about food and in recipes. Look at the pictures. Write the word that belongs to each picture.





1. _ _ _ _ _ _ _ _ _ 2. _ _ _ _ _ _ _ _ _ _ _ _ 3. _ _ _

Answers: 1. teaspoon 2. tablespoon 3. cup

Which Is Bigger?

Which is the bigger unit of measure? Write that word.

1. Cup or tablespoon? _____
2. Cup or teaspoon? _____
3. Teaspoon or tablespoon? _____

Math Words

cup
ta ble spoon
tea spoon

Measure Up

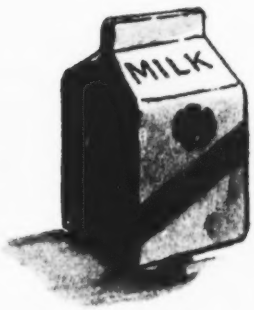
Small units of measure can make bigger units. Finish these sentences. Write *cup*, *tablespoon*, or *teaspoon*.

1. How big is each unit?
   a. The smallest unit is the _____.
   b. The bigger unit is the _____.
   c. The biggest unit is the _____.
2. Which small units make up bigger units?
   a. 3 _____ make up 1 tablespoon.
   b. 16 tablespoons make up 1 _____.

Words About Liquids

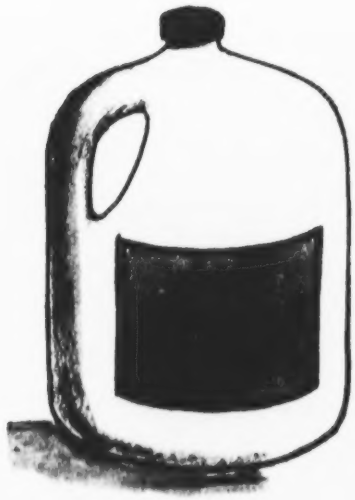
These words are often seen in word problems about liquids. They are used on cartons of foods such as milk or juices. They are also used on cans of liquids such as oil or paint. The pictures show cartons of milk. Write *gallon*, *pint*, or *quart* where they belong.

1. _ _ _ _



2. _ _ _ _ _

3. _ _ _ _ _ _



Answers: 1. pint 2. quart 3. gallon

Which Is Bigger?

Which is the bigger unit of measure? Write that word.

1. Pint or gallon? _____
2. Pint or quart? _____
3. Gallon or quart? _____

Math Words

gal lon
pint
quart

Measure Up

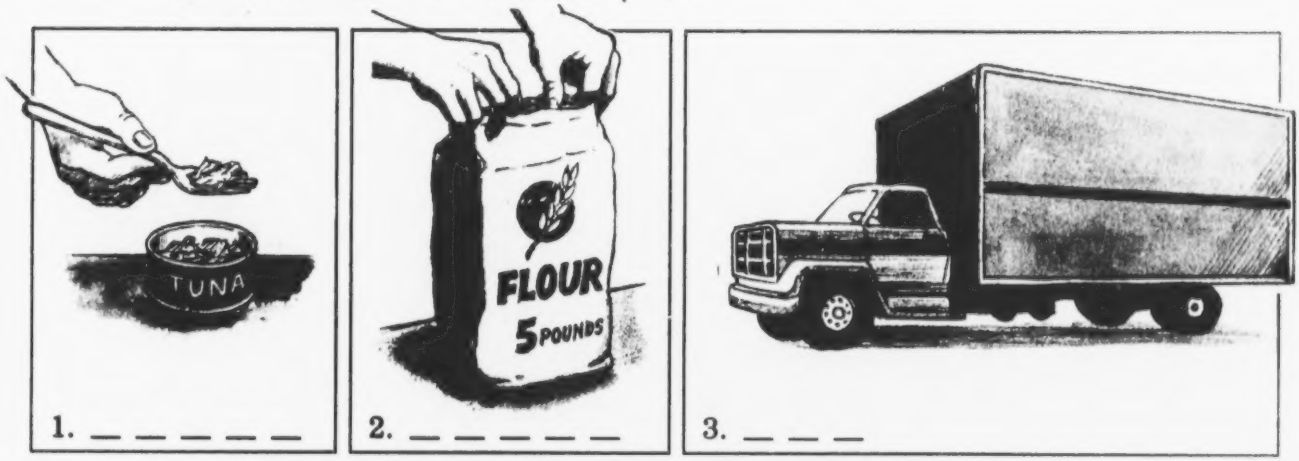
Finish these sentences. Write *gallon*, *pint*, or *quart*.

1. How big is each unit?
   a. The smallest unit is the _____.
   b. The bigger unit is the _____.
   c. The biggest unit is the _____.
2. Which small units make up bigger units?
   a. 2 _____ make up 1 quart.
   b. 4 quarts make up 1 _____.

Words About Weight

These words are used in word problems about weight. They are used to tell how heavy things are. They are words you'll see in stores. They are also words that are used to describe the weight of trucks, ships, and other machines.

Which word might be used to describe the weight of the things below? Write *ounce*, *pound*, or *ton*.



1. _ _ _ _ _ _

2. _ _ _ _ _ _

3. _ _ _ _

Answers: 1. ounce 2. pound 3. ton

Which Is Bigger?

Which is the bigger unit of measure? Write that word.

1. Ounce or pound? _____
2. Ton or pound? _____
3. Ounce or ton? _____

Math Words

ounce
pound
ton

Measure Up

Finish these sentences. Write *ounce*, *pound*, or *ton*.

1. How big is each unit?
   a. The smallest unit is the _____.
   b. The bigger unit is the _____.
   c. The biggest unit is the _____.
2. Which small units make up bigger units?
   a. 16 _____ make up 1 pound.
   b. 2,000 pounds make up 1 _____.

Words About Length

The words in the word box are used to describe how long something is. Look at the things listed below. Suppose you were measuring them. Which word would you use to describe how long each is?

1. a pin _ _ _ _
2. a person _ _ _ _
3. a very long piece of cloth _ _ _ _
4. a road _ _ _ _

Answers: 1. inch 2. foot 3. yard 4. mile

Bigger or Smaller?

Finish these sentences. Write *bigger* or *smaller*.

1. A foot is _____ than a yard.
2. An inch is _____ than a mile.
3. An inch is _____ than a yard.
4. A mile is _____ than a yard.
5. A foot is _____ than a mile.
6. A foot is _____ than an inch.

Math Words

foot or feet
inch
mile
yard

Measure Up

Finish these sentences. Write *inch*, *foot*, *yard*, and *mile*.

1. How big is each unit?
   a. The smallest unit is the _____.
   b. The unit that's bigger than that is the _____.
   c. The unit that's next biggest is the _____.
   d. The biggest unit of all is the _____.
2. Which small units make up bigger units?
   a. 12 _____ make up a foot.
   b. 3 feet make up a _____.
   c. 1,760 yards make up a _____.

Metric Words

Many word problems are about *metric* units of measure. Metric measurements are used by many people. For example, you'll see metric words when you buy certain drinks in stores. You'll also see them on road signs.

Some metric words are in the word box. How many do you know?

Math Words
cen ti me ter
gram
ki lo gram
ki lo me ter
li ter
me ter
mil li li ter

1. Two words are used to describe weight. Find the words in the word box. Draw a (circle) around those words.

   a. Which is the smaller unit of weight? g _ _ _

   b. Which is the bigger unit of weight? k _ _ _ _ _ _ _ _

   c. Now finish this sentence. Use *grams* and *kilogram*:

   1 _____ is made up of 1,000 _____.

2. Two words are used to describe liquids. Find those words in the word box. Draw a line under those words.

   a. Which is the smaller unit? m _ _ _ _ _ _ _ _ _

   b. Which is the larger unit? l _ _ _ _

   c. Now finish this sentence. Use *liter* and *milliliters*:

   1,000 _____ make up 1 _____.

3. Three words in the word box are used to measure length. Put an X in front of those words.

   a. Which is the smallest unit of length? c _ _ _ _ _ _ _ _ _

   b. Which is bigger unit of length? m _ _ _ _

   c. Which is the biggest unit of length? k _ _ _ _ _ _ _ _

   d. Now finish these sentences. Write *centimeters*, *meter*, and *kilometer*:

   100 _____ make up 1 _____.

   1,000 meters make up 1 _____.

Unit 6

Abbreviations and Symbols

Picture this: You're in a store, buying some jewelry. You see a sign:

Rings ea. 20% off

That sign is telling you something about the price of one ring. It uses an *abbreviation* and a *symbol* to do so.

Facts about math are often told with abbreviations and symbols. In this unit you'll learn some of them.

Short Words

Below are abbreviations for some of the math words you've learned. How many do you know? Draw a line from each abbreviation to the word it stands for. If you're not sure what an abbreviation stands for, look at the *Table of Abbreviations* on page 30.

Math Words
amt.
bal.
dep.
ea.
int.
tot.

1. dep.	a. amount
2. ea.	b. balance
3. amt.	c. deposit
4. tot.	d. each
5. bal.	e. interest
6. int.	f. total

Answers: 1. c 2. d 3. a 4. f 5. b 6. e

Your Turn

Write the abbreviation for these words.

1. interest _____
2. total _____
3. each _____
4. amount _____
5. balance _____
6. deposit _____

Short Measures

What do you think these abbreviations stand for? Draw a line from each abbreviation to its measurement word. If you need help, look at the *Table of Abbreviations* on page 30.

1. pt.	a. inch
2. in.	b. pint
3. oz.	c. quart
4. lb.	d. ounce
5. qt.	e. pound
6. c.	f. cup
7. tsp.	g. mile
8. gal.	h. gallon
9. mi.	i. teaspoon
10. tb.	j. tablespoon
11. ft.	k. yard
12. yd.	l. foot or feet

Answers: 1. b 2. a 3. d 4. e
5. c 6. f 7. i 8. h 9. g
10. j 11. l 12. k

Abbreviations

c.	kg.	ml.
cm.	km.	oz.
ft.	l.	pt.
g.	lb.	qt.
gal.	m.	tb.
in.	mi.	tsp.
		yd.

Your Turn

Write the abbreviations of these words.

1. teaspoon _____
2. tablespoon _____
3. cup _____
4. pint _____
5. quart _____
6. gallon _____
7. ounce _____
8. pound _____
9. inch _____
10. foot _____
11. yard _____
12. mile _____

Short Metrics

Abbreviations for metric words are listed below. Draw a line from the abbreviation to its word.

1. m.	a. meter
2. kg.	b. liter
3. cm.	c. kilogram
4. l.	d. centimeter
5. km.	e. gram
6. g.	f. milliliter
7. ml.	g. kilometer

Answers: 1. a 2. c 3. d 4. b
5. g 6. e 7. f

Your Turn

Write the abbreviations of these words.

1. gram _____
2. kilogram _____
3. milliliter _____
4. liter _____
5. centimeter _____
6. meter _____
7. kilometer _____

Symbols

Look at the symbols in each box at right. Guess what they stand for. Then turn the words below into numbers and symbols. (The first is done). To check your answers, look at the *Table of Symbols* on page 30.

Measurement

1. twelve **inches** 12"
2. six **feet** _____
3. five **pounds** _____

Symbols	'	"	#

Money

1. sixty **cents** _____
2. one **dollar** _____
3. one **point** five _____
4. fifty **percent** _____

Symbols	%	¢	$	.

Operations

1. two **plus** three _____
2. four **minus** two _____
3. eight **times** six _____
4. six **divided by** two _____
5. two **plus** two **equal** four _____

Symbols	÷	×	+	−	=

Other Math Words

1. six **is greater than** three _____
2. three **is smaller than** six _____
3. **each** two dollars _____
4. sixty cents **per** gal. _____
5. **number** one _____

Symbols	#	>	<	/	@

Tables

Here are the symbols and abbreviations you learned about in this book. Use these tables when you want to check on what those symbols and abbreviations stand for.

Measurement

" . . . . . inch, inches. Example: The ruler is 12" long.

' . . . . . foot, feet. Example: Mel is 6' tall.

. . . . . this means *pounds* when it comes after a number. Example: 5# of flour (5 pounds of flour)

Money

¢ . . . . . cent, cents. Example: 60¢

$ . . . . . dollar, dollars. Example: $1 *or* $1.00

. . . . . decimal point. Example: 1.5

% . . . . . percent. Example: 50%

Operations

+ . . . . . add. Example: 2+3 (2 plus 3 *or* 2 and 3)

− . . . . . subtract. Example: 4−2 (4 minus 2 *or* 4 take away 2 *or* 2 from 4)

× . . . . . multiply. Example: 8×6 (8 times 6)

÷ . . . . . divide. Example: 6÷2 (6 divided by 2) Also: $2\overline{)6}$ (2 goes into 6)

= . . . . . equal. Example: 2+2=4 (2 plus 2 is 4 *or* 2 plus 2 are 4)

Other Math Words

> . . . . . is greater than, is more than. Example: 6>3 (6 is greater than 3 *or* 6 is more than 3)

< . . . . . is smaller than, is less than. Example: 3<6 (3 is smaller than 6 *or* 3 is less than 6)

@ . . . . . each, at. Example: tapes @ $2.00 (tapes each $2.00 *or* tapes at $2.00)

/ . . . . . per, for. Example: 60¢/gal. (60¢ per gallon *or* 60¢ for a gallon)

. . . . . this means *number* when it comes before a number. Example: #1 (number 1)

Abbreviations

Math Words

amt . . . . . amount
bal . . . . . balance
dep . . . . . deposit
ea . . . . . each
int . . . . . interest
tot . . . . . total

Measurement Words

c . . . . . cup
ft . . . . . foot or feet
gal . . . . . gallon
in . . . . . inch
lb . . . . . pound
mi . . . . . mile
oz . . . . . ounce
pt . . . . . pint
qt . . . . . quart
tb (or **tbsp**) . . . . . tablespoon
tsp . . . . . teaspoon
yd . . . . . yard

Metric Words

cm . . . . . centimeter
g . . . . . gram
kg . . . . . kilogram
km . . . . . kilometer
l . . . . . liter
m . . . . . meter
ml . . . . . milliliter

Congratulations!

You learned some important math words that can help you understand and solve word problems.

Glossary

These are the words you learned about in this book. Use this Glossary whenever you want to check the meaning of those words.

al to geth er Every one of something. In all.
a mount The number or sum of something.
at For. For the price of.
bal ance How much a person now has.
cen ti me ter A small unit of metric measure. It is used to measure length. (See page 26.)
change Money that a person gets back.
charge To add an amount to what you owe.
cred it To add an amount to what you already have.
cup A unit of measure. It is usually used in cooking. (See page 22.)
dai ly Every day.
de crease To make a number smaller.
de duct To take out money from something such as a paycheck.
de pos it To add money to something such as a savings account.
dif fer ence The name of the answer to a subtraction problem.
dis count A lower price.
each One person or thing.
e qual ly Where all have the same amount. Evenly.
e ven ly Where all have the same amount. Equally.
few er than To have a smaller number. Less than.
foot A unit of measure. It is used to measure length. (See page 25.)
for At the price of. To or for one thing or one group of things.
gal lon A large unit of measure. It is used to measure liquids. (See page 23.)
gram A small unit of metric measure. It is used to measure weight. (See page 26.)
great er than To have a bigger number. More than.
hour ly Every hour.
in all For everything. Altogether.
inch A small unit of measure. It is used to measure length. (See page 25.)
in crease To make a number larger.
in ter est A charge for borrowing money.
ki lo gram A unit of metric measure. It is used to measure weight. (See page 26.)
ki lo me ter A large unit of metric measure. It is used to measure length. (See page 26.)
least The smallest.
less than To have a smaller number. Fewer than.
li ter A unit of metric measure. It is used to measure liquids. (See page 26.)
me ter A unit of metric measure. It is used to measure length. (See page 26.)
mile A large unit of measure. It is used to measure length. (See page 25.)
mil li li ter A small unit of metric measure. It is used to measure liquid. (See page 26.)
month ly Every month.
more than To have a bigger number. Greater than.
most The largest or biggest.
ounce A small unit of measure. It is used to measure weight. (See page 24.)
per For one thing.
per cent A part of an amount.
pint A small unit of measure. It is used to measure liquids. (See page 23.)
pound A unit of measure. It is used to measure weight. (See page 24.)
prod uct The name of the answer to a multiplication problem.
quart A unit of measure. It is used to measure liquids. (See page 23.)
quo tient The name of the answer to a division problem.
raise To make a number larger.
re duce To make a number smaller.
re main To be left.
sum The name of the answer to an addition problem.
ta ble spoon A unit of measure. It is usually used to measure foods. (See page 22.)
tea spoon A small unit of measure. It is usually used to measure foods. (See page 22.)
ton A very large unit of measure. It is used to measure the weight of very heavy things. (See page 24.)
to tal The whole amount. The cost of everything.
week ly Every week.
with draw To take out money from something such as a savings account.
yard A unit of measure. It is used to measure length. (See page 25.)
year ly Every year.

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